

REMARKS

The Official Action mailed May 9, 2006, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to September 9, 2006. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on October 31, 2003; May 5, 2004; June 28, 2004; September 13, 2004; and June 15, 2005.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 4, 5, 20 and 28-31 were pending in the present application prior to the above amendment. Independent claims 4, 20, 28 and 29 have been amended to better recite the features of the present invention, and new dependent claim 32 has been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 4, 5, 20 and 28-32 are now pending in the present application, of which claims 4, 20, 28 and 29 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 4 and 5 as obvious based on the combination of U.S. Patent No. 6,900,861 to Yasui and U.S. Patent Application Publication No. 2002/0084459 to Choi. The Official Action rejects claims 20 as obvious based on the combination of Yasui, U.S. Patent Application Publication No. 2006/0030122 to Shimoda and U.S. Patent Application Publication No. 2002/0016028 to Arao. The Official Action rejects claims 28-31 as obvious based on the combination of Yasui, Shimoda, Choi and Arao. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 4, 20, 28 and 29 have been amended to recite an adhesive material comprising a resin, which is supported in the present specification, for example, at page 3, lines 23-27. Further, claim 20 has been amended to recite a protective film over the adhesive material, the protective material comprising Teflon. Claims 4, 28 and 29 already recite a protective film over the adhesive material, the protective material comprising Teflon (or a material selected from a group including Teflon). In the present invention, the claimed protective film is used as a blocking film which protects a thin film transistor from being contaminated by a substance derived from the adhesive material comprising the resin. For the reasons provided below, Yasui, Shimoda, Choi and Arao, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action relies on lower bonding film 10B of Yasui to allegedly teach the adhesive material of the present claims (page 2, Paper No. 20060504; referring to column 9, lines 29-30 of Yasui). However, Yasui does not teach or suggest that the lower bonding film 10B of Yasui should comprise a resin.

Shimoda, Choi and Arao do not cure the deficiencies in Yasui. The Official Action relies on Shimoda to allegedly teach a battery over a substrate (page 3, Paper No. 20060505), on Choi to allegedly teach a protective film formed of silicon oxide or Teflon (page 2, *Id.*) and on Arao to allegedly teach a central processing unit including n and p channel type thin film transistors (page 3, *Id.*). However, Yasui, Shimoda, Choi and Arao, either alone or in combination, do not teach or suggest an adhesive material comprising a resin or that Yasui should be modified such that the lower bonding film 10B of Yasui should comprise a resin.

Since Yasui, Shimoda, Choi and Arao do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

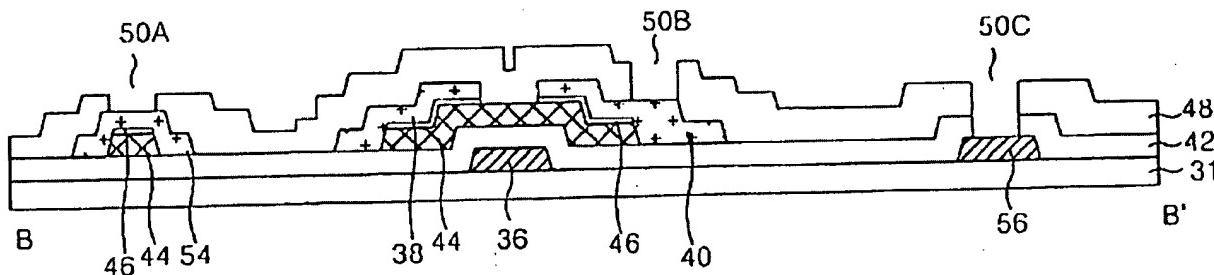
Furthermore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yasui, Shimoda, Choi and Arao or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination

obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action relies on upper bonding film 12 of Yasui to allegedly teach the protective film of the present claims. The Official Action concedes that Yasui teaches that "the protective film 12 is formed of silicon oxide ... but not of Teflon as claimed" (page 2, Paper No. 20060504). The Official Action relies on Choi to allegedly teach that "the protective film 48 can be formed of silicon oxide or Teflon" (*Id.*, referring to paragraph [0062] of Choi; Figure 7D reproduced below).

FIG. 7D



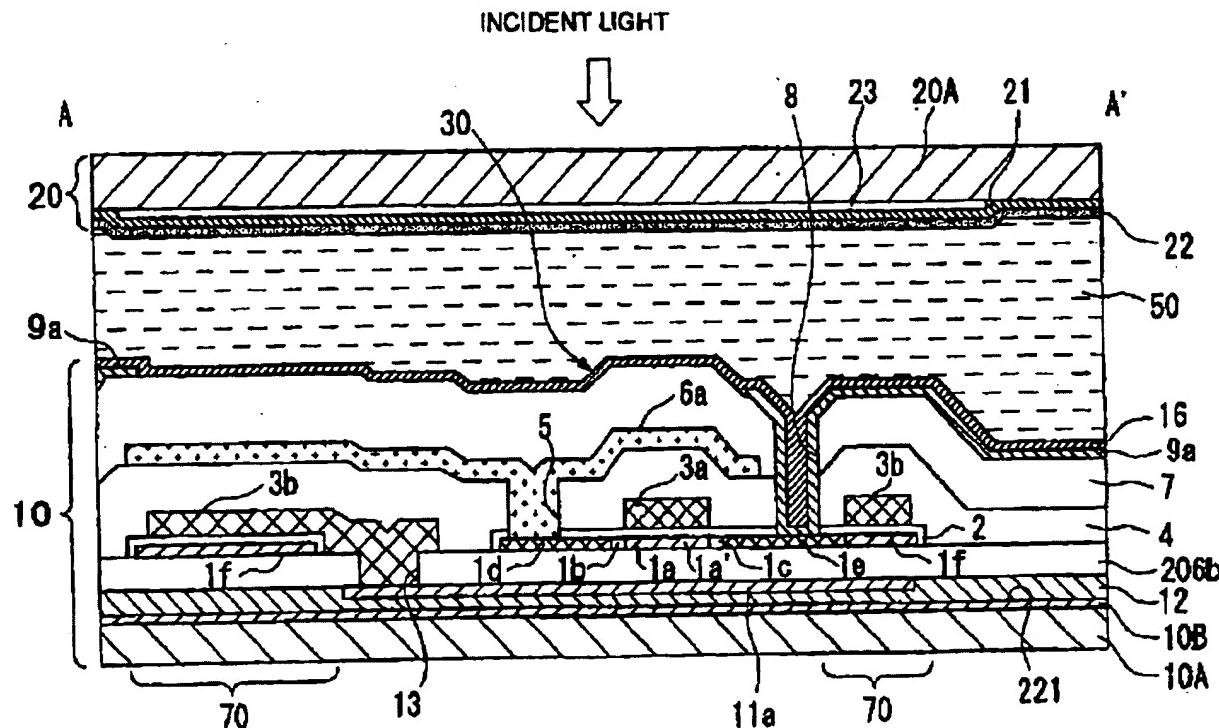
The Official Action asserts that "it would have been obvious ... to modify Yasui by substituting Teflon for silicon oxide to form a protective film because Teflon and silicon oxide were [recognized] art equivalents" (*Id.*). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

Since Yasui does not teach or suggest an adhesive material comprising a resin, the Applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art at the time of the present invention to regard the upper bonding film 12 of Yasui as the protective film of the present claims. Also, the upper bonding film 12 of

Yasui does not function as a protective film in the sense of the present invention since the upper bonding film 12 of Yasui is made of silicon oxide.

Choi does not overcome these deficiencies in Yasui. The Official Action asserts that Choi teaches that silicon oxide and Teflon "were art equivalents" (page 2, Paper No. 20060504). Choi does not in fact teach that silicon oxide and Teflon are equivalent. Rather, Choi teaches that either silicon oxide or Teflon could be used for the protective layer 48 of Choi.

Also, it is noted that upper bonding film 12 of Yamazaki is formed on lower bonding film 10B and under TFT 30 (see Figure 3, reproduced below; and columns 8-9).



In order to render obvious the independent claims of the present application, the Official Action would have to demonstrate that one of ordinary skill in the art at the time of the present invention would have been motivated to convert the silicon oxide upper bonding film 12 into a protective film and would have been motivated to use Teflon

instead of silicon oxide. Yasui itself does not teach or suggest these changes to Yasui, and Choi does not provide sufficient motivation to suggest these changes to Yasui.

The protective film of Choi is located in a different position and has a different function from the position and function of the upper bonding film of Yasui. Specifically, the protective layer 48 of Choi is formed over (not under) a thin film transistor and a substrate 31. The independent claims require that a protective film be formed between a thin film transistor and a plastic substrate. Since protective film 48 of Choi is formed over a TFT, the function of the protective film of the claims of the present invention is not the same as protective layer 48 of Choi. Also, Choi does not teach or suggest why one of ordinary skill in the art should have applied the function or materials of protective layer 48, which is formed over a TFT, to silicon oxide upper bonding film 12 of Yasui, which is formed under a TFT. It appears that Choi does not disclose any particular advantage that would be gained in using Teflon instead of silicon oxide for the upper bonding film 12 of Yasui.

Therefore, the Official Action has not provided sufficient motivation or demonstrated that one of ordinary skill in the art at the time of the present invention would have been motivated to apply a material which is used for the protective film of Choi to the upper bonding film 12 of Yasui.

Further, it is not sufficient to merely point out the advantages of two references and assert that it would have been obvious to combine the two references so that you can have both advantages in one device. Rather, in order to form a *prima facie* case of obviousness, the Official Action must show why the references should have been combined.

Please incorporate the arguments above with respect to the deficiencies in the motivation to combine Yasui and Choi. Shimoda and Arao do not cure the deficiencies in the alleged motivation to combine Yasui and Choi. As noted above, the Official Action relies on Shimoda to allegedly teach a battery over a substrate (page 3, Paper No. 20060505) and on Arao to allegedly teach a central processing unit including n and

p channel type thin film transistors (page 3, *Id.*). However, Shimoda and Arao do not show that it would have been obvious to combine Yasui and Choi. Specifically, Shimoda and Arao do not show why one of ordinary skill in the art at the time of the present invention would have been motivated to convert the silicon oxide upper bonding film 12 into a protective film and would have been motivated to use Teflon instead of silicon oxide for the upper bonding film 12.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yasui, Shimoda, Choi and Arao or to combine reference teachings to achieve the claimed invention.

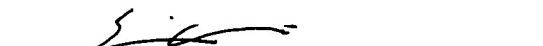
In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New dependent claim 32 had been added to recite additional protection to which the Applicant is entitled. For the reasons stated above and already of record, the Applicant respectfully submits that new claim 32 is in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson  
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.  
PMB 955  
21010 Southbank Street  
Potomac Falls, Virginia 20165  
(571) 434-6789